ENFORCER PASSIVE PCI VIDEO BALUN HUB

Specifications:

EVT-PC4-VT2Q (Video Balun Card)

Range*	B/W: 2,000 feet (610M)
	Color: 1,300 feet (400M)
Video Format	RS170, NTSC, PAL, SECAM, CCIR
Maximum Input	1vpp
Insertion Loss	< 2dB per pair from DC ~ 5 Mhz
Return Loss	>-15dB from DC ~ 5 Mhz
Frequency Response	DC ~ 5 Mhz
Attenuation	DC ~ 5 Mhz, 1.5 dB max
Common Mode Rejection	60 dB, 15 KHz~5 MHz
Impedance	
Coax, Male BNC	75 Ohms @ 1 MHz
Terminal Block	100 Ohms @ 1 MHz
Power	No power required
Temperature Range	14°~165^oF (-10°~74^oC)
Humidity Range	0 ~ 95%
Wire Type	UTP (16 - 24 AWG)
Wire Category	CAT2 or better, CAT5 ideal
UTP Connection	Screwless Terminal Blocks
No. of channel	4

*Note: Shorter range may result when baluns are used with DVR.

EVT-PC4P-JTQ (Power Card)

Video Input	Removable terminal block
Power Input	Power jack (2.1mm jack)
Power Output	Removable terminal block
Power Indicator	3-color LED
Voltage output	12VDC (inc. power adapter)
Total Supply Current	4 Amp. (inc. power adaptor)
Temperature Range	14°~165^oF (-10°~74^oC)
Humidity Range	0 ~ 95%
Wire Type	UTP (16 - 24 AWG)
Wire Category	CAT2 or better, CAT5 ideal

Minimum Distance Over UTP @ 12VDC*

Current Draw	1 Pair	2 Pair	3 Pair
100mA	100′	200′	300′
300mA	30′	60′	100′
1 Amp	N/A	15′	30′

*Note: Maximum distance depends on voltage, current, ambient temperature, and wire guage.
    (Maximize distance with 3 UTP pairs.)

Installation Manual

ENFORCER®

EVT-PC4-VT2Q

EVT-PC4-VT2Q
**4-port PCI Passive Video Balun Hub
Range: Up to 2,000' (610mm)**

EVT-PC4P-JTQ
**4-port PCI Power Distributor Card
Range: See chart on page 4.**

EVT-PC4P-JTQ

EVT-PC4KQ
**4-port PCI Video Balun Hub & Power Card Set
(Includes 4 Amp 12VDC Adapter)**

WHAT IT IS

The ENFORCER EVT-PC4-VT2Q is a 4-port PCI Video Balun Hub specifically designed for PC based DVR cards . The EVT-PC4-VT2Q is the most practical and cost efficient way of connecting video signals from CCTV cameras to PC based DVR cards via Cat5 cables. It eliminates the need to install individual video baluns on the DVR card side, and is equipped with a gold plated BNC connector for optimum video performance and a screwless terminal block for convenient and organized wiring installations.

The EVT-PC4P-JTQ is an add-on power card for EVT-PC4-VT2Q. When installed with EVT-PC4-VT2Q it will allow power to be transmitted from the PC side to CCTV camera side over the same UTP cables used by the video signal. It centralizes the power suppy of CCTV cameras.

Installation

Installing the EVT-PC4-VT2Q and EVT-PC4P-JTQ

1. Shut down the computer, disconnect the power and remove the computer cover from its chasis. See Fig. 2.
2. Determine the location of the available card slots at the back panel of the computer, and remove the metal covering of the desired slot.
3. Securely mount the EVT-PC4-VT2Q and/or EVT-PC4P-JTQ in their respective slots with the provided screw at the back panel of the computer. Please note that the EVT-PC4-VT2Q and EVT-PC4P-JTQ boards do not need to be inserted into the PCI (Peripheral Componet Interconnect) slots of the computer motherboard. Then replace the cover of the computer.

NOTE: For convenient wiring it is recommended that the DVR cards, EVT-PC4-VT2Q and EVT-PC4P-JTQ, be installed adjacent to each other as shown on Fig. 2.

EVT-PC4-VT2Q Wiring (see Fig. 3) - Video Balun Card

1. Make sure the maximum distance between the CCTV camera and the DVR card does not exceed 1,950 feet for monochrome or 1,300 feet for color.
2. Run the UTP cable from the DVR card to where it will be connected to the CCTV camera. Follow the CCTV camera's wiring instructions for information on how to safely run and hide this wire.

NOTE: 1. Individual separate passive video baluns such as SECO-LARM's EVT-PB1 are required for each camera on the camera side.
    2. The video baluns are polarity-sensitive. Take note of the colors of the positive & negative wires of the video signal cables as this will be needed when connecting the other end of the UTP cables at the DVR card side.
    3. Use the orange/ orange-white color wire pair of the UTP cable for the video signal. Connect the UTP cables to the passive video baluns on the camera side and plug the video baluns into the BNC connector of the CCTV cameras. The EVT-PC4-VT2Q can accomodate a maximum of 4 cameras.

4. Connect the other ends of the UTP cables of the respective cameras into the screwless terminal block on the EVT-PC4-VT2Q side, see Fig. 3. Each video signal from the CCTV camera requires one positive and one negative wire, so observe correct polarity when connecting the UTP cables. "Vi-1" represents the video input and "Vo-1" represent video output of channel 1.

NOTE: Bare wires must not be exposed outside of the EVT-PC4-VT2Q's terminal block.

5. Connect the included male-to-male BNC cable. Connect one end to the BNC female connector of the EVT-PC4-VT2Q side and connect the other end to the BNC female connector of the DVR card side. Connect as many cables as needed.

6. Test the connection by powering up the CCTV camera and DVR card to make sure they operate as expected.

EVT-PC4P-JTQ Wiring - Power Cord

1. When using EVT-PC4P-JTQ, the supplied 8-pin wire assembly must be first connected to the 8-pin connectors of both EVT-PC4-VT2Q and EVT-PC4P-JTQ, which are located on their respective PC boards, before mounting them to the computer chasis. Please see Fig. 1 & Fig. 5.

IMPORTANT – When using the EVT-PC4P-JTQ, the video signals from the CCTV cameras **MUST** be connected on the terminal blocks of the EVT-PC4P-JTQ side and the video input terminal blocks of the EVT-PC4-VT2Q must not be connected to any video signal. This means that when the EVT-PC4P-JTQ is used the video input must be connected on the EVT-PC4P-JTQ side.

2. **To minimized voltage drop, use two UTP wire pairs for power transmission.** Use the spare blue/blue-white wire pair and brown/brown-white wire pair of the UTP cable for 12 VDC power transmission. Connect one end of the UTP cable to the EVT-PC4P-JTQ's terminal block with "PWR' marking. **CORRECT POLARITY MUST BE OBSERVED.**

3. Plug the included power adaptor into the power jack of the EVT-PC4P-JTQ and plug the power adaptor's power cord into the electrical outlet. Use on-board LED to verify polarity. See fig. 1.

4. Check the voltage reading at the end of the power line (camera side) to verify it is correct before connecting it to the CCTV cameras.

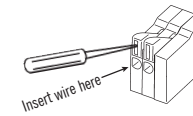WARNING: Using a voltage output in excess of the specified voltage level of a camera may cause damage.

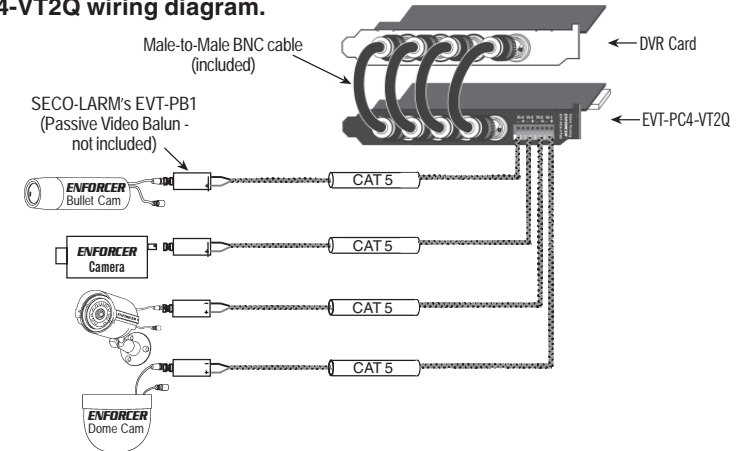## Fig. 1: EVT-PC4-VT2Q and EVT-PC4P-JTQ product overview.
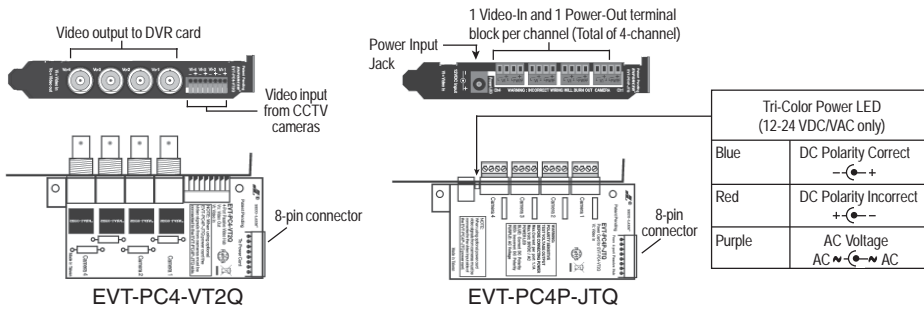
Fig. 2: Installing EVT-PC4-VT2Q and EVT-PC4P-JTQ into the back panel of PC.
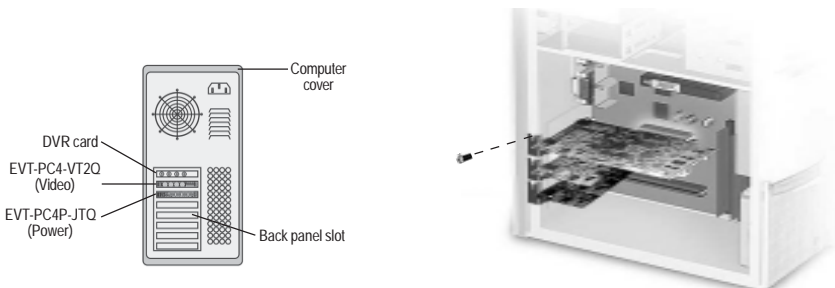
Fig. 3: Wiring the EVT-PC4-VT2Q's screwless terminal block.

Figure 4: EVT-PC4-VT2Q wiring diagram.

Figure 5: EVT-PC4-VT2Q and EVT-PC4P-JTQ wiring diagram.

NOTE: Use SECO-LARM's EVA-F5521-3Q pigtail connector to avoid cutting the DC jack of the camera. Cutting it will void the warranty.